

Regional HIV/AIDS Epidemiologic Profile of Boston Health Service Region, Massachusetts: 2011

Recent changes to the presentation of Massachusetts HIV/AIDS surveillance data

Effective January 1, 2011, the Massachusetts Department of Public Health (MDPH), Bureau of Infectious Diseases, HIV/AIDS fact sheets, epidemiologic reports and other HIV data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed while residing in another state before being reported in Massachusetts. As of January 1, 2011, this resulted in the removal of 2,297 HIV/AIDS cases, of which 739 have died and 1,558 were living. These persons living with HIV/AIDS may currently reside and receive care in the Commonwealth. The total number of persons living in Massachusetts with HIV/AIDS, irrespective of location of diagnosis, is the basis for MDPH service planning. This change is partially a result of increased activities required by the Centers for Disease Control and Prevention (CDC) for de-duplication among states in an effort to identify cases that are counted multiple times in the National HIV/AIDS surveillance system. The cases are assigned to the state that reports the earliest date of AIDS diagnosis, if available. If the case has not progressed to AIDS, the case is assigned to the state with the earliest HIV diagnosis date. Please note that all previous HIV/AIDS fact sheets, data reports and presentations include cases that may have been first diagnosed in another state.

Also effective January 1, 2011, the Massachusetts Department of Public Health (MDPH) HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to eliminate the presumed heterosexual exposure mode category for males; those cases have been reassigned to the not identified risk (NIR) exposure mode category. The presumed heterosexual exposure mode category was used with the intention of identifying HIV exposure mode for females when sex with males is the only reported risk factor, there is no evidence of current or past injection drug use (IDU), and behavioral risk and HIV status information about male sexual partners are unknown. Twenty-nine percent of females living with HIV/AIDS and 41% of recent HIV diagnoses among females are reported in the presumed heterosexual exposure mode category. The application of the presumed heterosexual exposure mode category to males is overly inclusive in that female to male HIV transmission is biologically less probable, and there are alternate exposure modes that are possible for males, including sex with other men (MSM) or IDU. The CDC reports males diagnosed with HIV/AIDS who report sex with females as their only risk factor, without corresponding partner risk or HIV status information, in the NIR exposure mode category. This revision to report presumed heterosexual male HIV/AIDS cases as NIR will bring Massachusetts HIV/AIDS case reporting for males in alignment with CDC standards. The MDPH will maintain presumed heterosexual and heterosexual exposure mode categories for females.

Table 1. Total number of people reported with HIV infection or AIDS¹ by mortality status on December 31, 2010: Boston Health Service Region, Massachusetts²

	N	%
People Living with HIV/AIDS	5,625	57%
People Reported with HIV or AIDS who are Deceased	4,246	43%
Total Number of People Reported with HIV Infection or AIDS	9,871	100%

¹ Does not include individuals diagnosed with HIV infection (non -AIDS) who died prior to January 1, 1999 or who were not in care on January 1, 1999

² Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

Data Source: MDPH HIV/AIDS Surveillance Program, Data as of 1/1/11

Table 2. Average annual rate of HIV infection diagnosis from 2007 to 2009 and HIV/AIDS prevalence rate on 12/31/10¹: Boston Health Service Region, Massachusetts²

Average annual HIV diagnosis rate from 2007–2009	Average rate per 100,000	Average annual number of HIV diagnoses
Boston Health Service Region, MA	25.2	179.7
Massachusetts Total	9.4	607.3

HIV/AIDS prevalence rate on 12/31/10	Rate per 100,000	Number of people living with HIV/AIDS
Boston Health Service Region, MA	790.5	5,625
Massachusetts Total	273.7	17,621

¹ The denominators for prevalence calculations are based on year 2005 population estimates from the MDPH Bureau of Health Statistics, Research and Evaluation.

² Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

Data Source: MDPH HIV/AIDS Surveillance Program, Data as of 1/1/11

Table 3. People living with HIV/AIDS¹, deaths among people reported with HIV/AIDS, and newly diagnosed HIV infections by year²: 2000–2009, Boston Health Service Region, Massachusetts³

Year	HIV/AIDS Prevalence	Deaths among those with HIV/AIDS	Diagnosis of HIV Infection
2000	4,009	98	397
2001	4,205	118	314
2002	4,448	108	351
2003	4,641	106	299
2004	4,818	91	268
2005	5,010	86	278
2006	5,152	87	229
2007	5,261	76	185
2008	5,375	71	185
2009	5,495	49	169

¹ Number of people living with HIV/AIDS on 12/31 of each year

² Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available 10 year period after the implementation of HIV infection reporting in 1999.

³ Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

Data source: MDPH HIV/AIDS Surveillance Program, Data as of 1/1/11

Table 4. People diagnosed with HIV infection from 2007–2009¹ and people living with HIV/AIDS on December 31, 2010 by gender, place of birth, race/ethnicity, exposure mode, age at HIV infection diagnosis and current age: Boston Health Service Region, Massachusetts²

HIV Infection Diagnoses			PLWH/A	
Gender:	N	%	N	%
Male	432	80%	4,295	76%
Female	107	20%	1,330	24%
Place of Birth:	N	%	N	%
US	363	67%	3,884	69%
Puerto Rico/US Dependency ³	30	6%	347	6%
Non-US	146	27%	1,394	25%
Race/Ethnicity:	N	%	N	%
White (non-Hispanic)	211	39%	2,311	41%
Black (non-Hispanic)	214	40%	2,164	38%
Hispanic/Latino	103	19%	1,060	19%
Other/Undetermined ⁴	11	2%	90	2%
Exposure Mode:	N	%	N	%
Male-to-male sex (MSM)	269	50%	2,667	47%
Injection Drug Use (IDU)	40	7%	812	14%
MSM/IDU	19	4%	186	3%
Heterosexual Sex	50	9%	692	12%
Other	4	1%	107	2%
Total Undetermined	157	29%	1,161	21%
• Presumed Heterosexual Sex ⁵	41	8%	435	8%
• Undetermined ⁶	116	22%	726	13%
Age:	N	%	N	%
	At Diagnosis		On December 31, 2010	
Under 13	3	1%	13	<1%
13 to 19	8	1%	44	1%
20 to 24	54	10%	109	2%
25 to 29	74	14%	198	4%
30 to 34	68	13%	311	6%
35 to 39	73	14%	534	9%
40 to 44	82	15%	955	17%
45 to 49	73	14%	1,231	22%
50 to 54	52	10%	1,048	19%
55 to 59	25	5%	655	12%
60+	27	5%	527	9%
Total	539	100%	5,625	100%

¹ Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available three-year period after the implementation of HIV infection reporting in 1999.

² Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

³ Ninety-seven percent of all people diagnosed with HIV infection in MA who were born in a US dependency were born in Puerto Rico, 1% were born in the US Virgin Islands, <1% were born in American Samoa, <1% were born in Guam and 3% were born in an unknown dependency.

⁴ Other/Undetermined includes Asian/Pacific Islander, American Indian/Alaska Native and people of unspecified race/ethnicity

⁵ Includes female sex with male of unknown HIV status or risk. This category is limited to females.

⁶ Includes male sex with female of unknown HIV status or risk, those still being followed up for risk information, those who have died with no determined risk, and those lost to follow-up.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/11

Table 5. People living with HIV/AIDS on December 31, 2010 by gender and race/ethnicity: Boston Health Service Region, Massachusetts¹

Race/Ethnicity:	Male		Female	
	N	%	N	%
White (non-Hispanic)	2,124	49%	187	14%
Black (non-Hispanic)	1,295	30%	869	65%
Hispanic/Latino	803	19%	257	19%
Other/Undetermined ²	73	2%	17	1%
Total	4,295	100%	1,330	100%

¹ Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

² Other/Undetermined includes Asian/Pacific Islander, American Indian/Alaska Native and people of unspecified race/ethnicity.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), data as of 1/1/11

Table 6. People living with HIV/AIDS on December 31, 2010 by gender and exposure mode: Boston Health Service Region, Massachusetts¹

Exposure Mode:	Male		Female	
	N	%	N	%
Male-to-male sex (MSM)	2,667	62%	N/A	N/A
Injection drug use (IDU)	538	13%	274	21%
MSM/IDU	186	4%	N/A	N/A
Heterosexual sex	221	5%	471	35%
Other	55	1%	52	4%
Total Undetermined	628	15%	533	40%
• Presumed heterosexual sex ²	N/A	N/A	435	33%
• Undetermined ³	628	15%	98	7%
Total	4,295	100%	1,330	100%

¹ Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

² Includes female sex with male of unknown HIV status or risk. This category is limited to females.

³ Includes male sex with female of unknown HIV status or risk, those still being followed up for risk information, those who have died with no determined risk, and those lost to follow-up.

N/A=Not Applicable

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), data as of 1/1/11

Table 7. People diagnosed with HIV infection by gender and year of diagnosis: Boston Health Service Region, Massachusetts¹, 2000–2009²

	Male		Female		Total
	N	%	N	%	
2000	284	72%	113	28%	397
2001	234	75%	80	25%	314
2002	257	73%	94	27%	351
2003	212	71%	87	29%	299
2004	204	76%	64	24%	268
2005	217	78%	61	22%	278
2006	184	80%	45	20%	229
2007	146	79%	39	21%	185
2008	152	82%	33	18%	185
2009	134	79%	35	21%	169

¹ Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

² Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available 10 year period after the implementation of HIV infection reporting in 1999.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), data as of 1/1/11

Table 8. People diagnosed with HIV infection by race/ethnicity and year of diagnosis: Boston Health Service Region, Massachusetts¹, 2000–2009²

	White NH		Black NH		Hispanic/Latino		Other/ Undetermined ³		Total
	N	%	N	%	N	%	N	%	
2000	123	31%	185	47%	75	19%	14	4%	397
2001	117	37%	135	43%	54	17%	8	3%	314
2002	119	34%	157	45%	69	20%	6	2%	351
2003	104	35%	124	41%	68	23%	3	1%	299
2004	97	36%	114	43%	54	20%	3	1%	268
2005	103	37%	102	37%	70	25%	3	1%	278
2006	93	41%	89	39%	44	19%	3	1%	229
2007	72	39%	71	38%	36	19%	6	3%	185
2008	75	41%	73	39%	33	18%	4	2%	185
2009	64	38%	70	41%	34	20%	1	1%	169

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² Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available 10 year period after the implementation of HIV infection reporting in 1999.

³ Other/Undetermined includes Asian/Pacific Islander, American Indian/Alaska Native and people of unspecified race/ethnicity. NH = Non-Hispanic

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), data as of 1/1/11

Table 9. People diagnosed with HIV infection by place of birth and year of diagnosis: Boston Health Service Region, Massachusetts¹, 2000–2009²

	US		Puerto Rico/ US Dependency ³		Non-US		Total
	N	%	N	%	N	%	
2000	248	62%	28	7%	121	30%	397
2001	203	65%	12	4%	99	32%	314
2002	217	62%	14	4%	120	34%	351
2003	184	62%	20	7%	95	32%	299
2004	179	67%	10	4%	79	29%	268
2005	176	63%	17	6%	85	31%	278
2006	146	64%	12	5%	71	31%	229
2007	124	67%	9	5%	52	28%	185
2008	124	67%	9	5%	52	28%	185
2009	115	68%	12	7%	42	25%	169

¹ Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

² Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available 10 year period after the implementation of HIV infection reporting in 1999.

³ Ninety-seven percent of all people diagnosed with HIV infection in MA who were born in a US dependency were born in Puerto Rico, 1% were born in the US Virgin Islands, <1% were born in American Samoa, <1% were born in Guam and 3% were born in an unknown dependency.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), data as of 1/1/11

Table 10. People diagnosed with HIV infection by exposure mode and year of diagnosis: Boston Health Service Region, Massachusetts¹, 2000–2009²

	MSM		IDU		MSM/ IDU		HTSX		Other		Pres. HTSX ³		Undeter- mined ⁴		Total
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N
2000	141	36%	66	17%	10	3%	59	15%	4	1%	41	10%	76	19%	397
2001	131	42%	39	12%	7	2%	47	15%	2	1%	32	10%	56	18%	314
2002	143	41%	44	13%	11	3%	65	19%	1	<1%	25	7%	62	18%	351
2003	123	41%	28	9%	10	3%	45	15%	1	<1%	37	12%	55	18%	299
2004	122	46%	25	9%	8	3%	24	9%	1	<1%	37	14%	51	19%	268
2005	147	53%	22	8%	7	3%	30	11%	4	1%	24	9%	44	16%	278
2006	119	52%	15	7%	8	3%	28	12%	1	<1%	21	9%	37	16%	229
2007	87	47%	20	11%	8	4%	15	8%	3	2%	13	7%	39	21%	185
2008	97	52%	11	6%	9	5%	19	10%	1	1%	14	8%	34	18%	185
2009	85	50%	9	5%	2	1%	16	9%	0	0%	14	8%	43	25%	169

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² Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available 10 year period after the implementation of HIV infection reporting in 1999.

³ Includes female sex with male of unknown HIV status or risk. This category is limited to females.

⁴ Includes male sex with female of unknown HIV status or risk, those still being followed up for risk information, those who have died with no determined risk, and those lost to follow-up.

MSM = Male-to-Male Sex; IDU = Injection Drug Use; MSM/IDU = Male-to-Male Sex and Injection Drug Use; HTSX = Heterosexual Sex; Pres. HTSX = Presumed Heterosexual Sex

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), data as of 1/1/11

Table 11. People diagnosed with HIV infection and AIDS within two months and all people diagnosed with HIV infection by year of diagnosis: Boston Health Service Region, Massachusetts¹, 2000–2009²

	HIV and AIDS diagnosed within two months	All HIV infection diagnoses	% diagnosed with HIV and AIDS within two months
Year:	N	N	%
2000	131	397	33%
2001	101	314	32%
2002	107	351	30%
2003	97	299	32%
2004	78	268	29%
2005	84	278	30%
2006	74	229	32%
2007	54	185	29%
2008	44	185	24%
2009	42	169	25%

¹ Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

² Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available ten-year period after the implementation of HIV infection reporting in 1999.
Data Source: MDPH HIV/AIDS Surveillance Program, data as of 1/1/11

Table 12. People diagnosed with HIV infection and AIDS within two months and all people diagnosed with HIV infection by gender, race/ethnicity, and place of birth: Boston Health Service Region, Massachusetts,¹ 2007–2009²

	HIV and AIDS diagnosed within two months	All HIV infection diagnoses	% diagnosed with HIV and AIDS within two months
Gender:	N	N	%
Male	113	432	26%
Female	27	107	25%
Race/Ethnicity:	N	N	%
White (non-Hispanic)	43	211	20%
Black (non-Hispanic)	68	214	32%
Hispanic/Latino	25	103	24%
Other/Undetermined ³	4	11	36%
Place of Birth:	N	N	%
US	87	363	24%
Puerto Rico/US Dependencies ⁴	4	30	13%
Non-US	49	146	34%
Total	140	539	26%

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² Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available three-year period after the implementation of HIV infection reporting in 1999.

³ Other/Undetermined includes Asian/Pacific Islander, American Indian/Alaska Native and people of unspecified race/ethnicity.

⁴ Ninety-nine percent of people diagnosed with HIV infection from 2007–2009 who were born in a US dependency were born in Puerto Rico, <1% were born in the US Virgin Islands and <1% were born in Guam.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), data as of 1/1/11